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BETH R	READ		JERABEK, KELLY L		
	LEGAL		ART UNIT	PAPER NUMBER	
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ROCHESTER, NY 14650-2201					_
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	09/654,745	ORLICKI ET AL.					
Office Action Summary	Examiner	Art Unit					
	Kelly L. Jerabek	2612					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	I. lely filed the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 19 Se	entember 2005						
	action is non-final.						
, <u> </u>		secution as to the merits is					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4)⊠ Claim(s) <u>1-24</u> is/are pending in the application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-24</u> is/are rejected.							
7) ☐ Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/or	r election requirement	,					
,,	election requirement.						
Application Papers							
9) The specification is objected to by the Examiner.							
10)☐ The drawing(s) filed on is/are: a)☐ acce	epted or b) $\square$ objected to by the E	Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
12) ☐ Acknowledgment is made of a claim for foreign a) ☐ All b) ☐ Some * c) ☐ None of:		-(d) or (f).					
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
3.☐ Copies of the certified copies of the prior	3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.							
	•						
Attachment(s)							
Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)					
2) D Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	te					
B) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal Patent Application (PTO-152) 6) Other:						

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#### **DETAILED ACTION**

# Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/19/2005 has been entered.

# Response to Arguments

Applicant's arguments filed 9/19/2005 have been fully considered but they are not persuasive.

# **Response to Remarks:**

Applicant's arguments (Amendment pages 7-8) state that the signal referenced by the Examiner indicating whether the power supply capacity from the printer (118) is or is not large enough is not supplied to image sensing device (117) from printer (118) and therefore the control signal is not received from the basic device as claimed. The

Examiner respectfully disagrees. The signal indicating the power supply capacity from printer (which is received from the printer) is what is being read as the claimed control signal. Takahashi states that the accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The Examiner is reading the power management unit (108) as a power supply unit since it supplies power to the camera using either the battery (109) or the printer (118). The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity from the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating power supply capacity from) received from the basic device (118).

Applicant's arguments with respect to claims 1-24 have been considered but are most in view of the new ground(s) of rejection.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. US 6,580,460 in view of Kishida et al. US 6,933,981.

Re claim 1, Takahashi discloses in figure 1 an image input/output system that is built by connecting an accessory device (117) such as a digital camera and a basic device (118) such as a printer (col. 3, lines 18-28). The basic device includes a data I/F unit (111) used to send information between the basic device (118) and the accessory device (117) (col. 3, lines 37-42). The Examiner is reading the data I/F unit (111) as a docking interface because it is used to relay information between the basic device (118) and the accessory device (117). The accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity from the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating the power supply capacity from printer) received from the basic device (118).

Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating the power supply capacity from printer). In addition, imaged data sensed by the accessory device (117) is sent to the basic device (118) to be printed out and when the basic device (118) and the accessory device (117) are connected a signal indicating the status of the basic device (118) is received by the accessory device (117); the signals are sent via a two-way interface (col. 3, line 43 – col. 4, line 5). Thus it can be seen that the signal indicating the status of the basic device provides information indicative of whether or not an application involving the use of the accessory device (117) (image data transfer) is currently running on the basic device (118). Although the Takahashi reference discloses all of the above limitations, the control signal (signal indicating the power supply capacity from printer) does not trigger a transition of the accessory device (camera) from a powered-off state in which the power supply unit is deactivated to a powered-on state in which the power supply unit is activated.

Kishida discloses a camera (accessory device) that is detachably attached to the main body of a personal computer (basic device) using connectors (62,70). The camera (52) is directly attached to the computer (PC1) and the video capture controller (223) of the computer (PC1) detects whether or not the camera (52) is connected to the computer (PC1) and turns on/off a switch (316) in order to connect a power supply (317) to the camera (52) (col. 13, line 35-col. 14, line 28). Thus, it can be seen that a control signal (detection result of whether or not the camera is connected to the computer)

triggers a transition of the accessory device (camera) from a powered-off state to a powered-on state. Therefore, it would have been obvious for one skilled in the art to have been motivated to include the teaching of using a control signal sent from a basic device to transition an accessory device from a powered-off state to a powered-on state as disclosed by Kishida in the image input/output system disclosed by Takahashi.

Doing so would provide a means for using a basic device to remotely activate a power source of an accessory device connected to the basic device.

Re claim 2, the power supply unit (108) taught in Takahashi is capable of supplying power to the image sensing device (117) from two different sources depending on the output of a power detection unit (202). Depending on the power supply capacity supplied from the printer, the power supply of the digital image-sensing device (117) is switched from a battery (109) to that of a printer (118) (col. 3, lines 43-59). Therefore, in the case that the power supply capacity supplied from the printer is not large enough to power the image-sensing device, the battery (109) is used. Thus, the power supply unit (108) maintains the electrical energy for operating the digital image-sensing device (117) using the battery (109) in response to a further control signal (signal indicating power supply capacity supplied from printer is not large enough).

Re claim 3, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the

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printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Re claim 4, the power supply unit (108) taught in Takahashi includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). If it is determined that the power supply capacity of the printer (118) is large enough (power activation signal is generated), the power supply of the digital image-sensing device (117) is switched from the batter (109) to the printer (118) (col. 3, lines 29-53; col. 13, lines 1-20). Therefore, it is inherent that there must be a switching element (first switching element) in the printer responsive to the power supply capacity signal sent by the image-sensing device (117) in order to determine if the power supply capacity is large enough (power activation signal is generated). Also, there is a second switching element (201) that supplies electric power supplied from the cable connected to the printer (118) to the image sensing device (117) in response to the power activation signal (col. 13, lines 11-20).

Re claim 5, the image-sensing device (117) disclosed by Takahashi includes a battery (109). The switching control unit (201) controls the switching of the power between the battery (109) and the power management unit (119) of the printer (118) (col. 13, lines 11-20). Therefore, the second switching element (201) is used to couple the battery (109) to the power supply (108).

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Re claims 6 and 18, the Takahashi reference discloses all of the limitations of claims 4 and 16. However, Takahashi fails to disclose a bipolar transistor and a field effect transistor used as switching elements. The Examiner takes **Official Notice** that it is well known in the art to use bipolar transistors and field effect transistors as switching elements in digital cameras. Therefore, it would have been obvious for one skilled in the art to have been motivated to use bipolar transistors and field effect transistors as switching elements in the digital camera disclosed by Takahashi.

Re claim 7, the power supply unit (108) taught in Takahashi includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Therefore, since the image-sensing device (117) is capable of being powered by either a battery (109) or the power supply of a printer (118) the Examiner is reading the power supply unit (108) as a switched mode power supply.

Re claims 12 and 20, the power supply unit (108) taught in Takahashi includes a switching control unit (201) that switches the power supply source from the battery (109) to the power management unit (119) in the printer (118) when it is determined that the printer (118) is capable of powering the image-sensing device (117) (col. 13, lines 11-

20). The Examiner is reading the switching control unit (201) a power management circuit because the switching control circuit latches a power supply of the printer (118) to a logic level required to maintain electrical energy. Despite this, Takahashi does not specifically state that the switching control unit (201) includes a capacitor and resistor network comprising at leas one capacitor and one resistor. However, the Examiner takes **Official Notice** that it is well known in the art to use a capacitor and resistor network comprising at least one capacitor and one resistor to perform a latching operation. Therefore, it would have been obvious for one skilled in the art to have been motivated to include a capacitor and resistor network for latching in the switching control unit disclosed by Takahashi.

Re claim 13, Takahashi discloses in figure 1 an image input/output system that is built by connecting an accessory device (117) such as a digital camera and a basic device (118) such as a printer (col. 3, lines 18-28). The basic device includes a data I/F unit (111) used to send information between the basic device (118) and the accessory device (117) (col. 3, lines 37-42). The Examiner is reading the data I/F unit (111) as a docking interface because it is used to relay information between the basic device (118) and the accessory device (117). The image input/output system includes an image processing unit (102) and a control processor (104) that controls image-processing circuitry to perform an image capture (col. 3, lines 29-42). The accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The power supply unit (108) includes a power detection unit (202) that measures the

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power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity from the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating the power supply capacity from printer) received from the basic device (118). The control signal must have a predetermined signal characteristic (power supply from printer is large enough to power camera) in order for the digital camera accessory device to transition from a powered-off state to a powered-on state by using power from the printer. Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating the power supply capacity from printer). Although Takahashi discloses a digital camera as the digital image-sensing device (117), he does not specifically state that the digital camera includes a lens system. However, the Examiner takes Official **Notice** that digital cameras including lens systems are well known and used in the art. Therefore, it would have been obvious for one skilled in the art to be motivated to include a lens system in the digital camera disclosed by Takahashi. Although the Takahashi reference discloses all of the above limitations, the control signal (signal indicating the power supply capacity from printer) does not trigger a transition of the accessory device (camera) from a powered-off state in which the power supply unit is deactivated to a powered-on state in which the power supply unit is activated.

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Kishida discloses a camera (accessory device) that is detachably attached to the main body of a personal computer (basic device) using connectors (62,70). The camera (52) is directly attached to the computer (PC1) and the video capture controller (223) of the computer (PC1) detects whether or not the camera (52) is connected to the computer (PC1) and turns on/off a switch (316) in order to connect a power supply (317) to the camera (52) (col. 13, line 35-col. 14, line 28). Thus, it can be seen that a control signal (detection result of whether or not the camera is connected to the computer) triggers a transition of the accessory device (camera) from a powered-off state to a powered-on state. Therefore, it would have been obvious for one skilled in the art to have been motivated to include the teaching of using a control signal sent from a basic device to transition an accessory device from a powered-off state to a powered-on state as disclosed by Kishida in the image input/output system disclosed by Takahashi.

Doing so would provide a means for using a basic device to remotely activate a power source of an accessory device connected to the basic device.

Re claim 14, the power supply unit (108) taught in Takahashi is capable of supplying power to the image sensing device (117) from two different sources depending on the output of a power detection unit (202). Depending on the power supply capacity supplied from the printer, the power supply of the digital image-sensing device (117) is switched from a battery (109) to that of a printer (118) (col. 3, lines 43-59). Therefore, in the case that the power supply capacity supplied from the printer is not large enough to power the image-sensing device, the battery (109) is used. Thus,

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the power supply unit (108) maintains the electrical energy for operating the digital image-sensing device (117) using the battery (109) in response to a further control signal (power supply capacity supplied from printer is not large enough).

Re claim 15, the power supply unit (108) taught in Takahashi includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Re claim 16, the power supply unit (108) taught in Takahashi includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). If it is determined that the power supply capacity of the printer (118) is large enough (power activation signal is generated), the power supply of the digital image-sensing device (117) is switched from the batter (109) to the printer (118) (col. 3, lines 29-53; col. 13, lines 1-20). Therefore, there must be a switching element (first switching element) in the printer responsive to the power supply capacity signal sent by the image-sensing device (117) in order to determine if the power supply capacity is large enough (power activation signal is generated). Also, there is a second switching element (201) that supplies electric power supplied from the cable connected to the printer (118) to the image sensing device (117) in response to the power activation signal (col. 13, lines 11-20).

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Re claim 17, the image-sensing device (117) disclosed by Takahashi includes a battery (109). The switching control unit (201) controls the switching of the power between the battery (109) and the power management unit (119) of the printer (118) (col. 13, lines 11-20). Therefore, the second switching element (201) is used to couple the battery (109) to the power supply (108).

Re claim 19, the power supply unit (108) taught in Takahashi includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Therefore, since the image-sensing device (117) is capable of being powered by either a battery (109) or the power supply of a printer (118) the Examiner is reading the power supply unit (108) as a switched mode power supply.

Re claim 21, Takahashi discloses a method of managing the power requirements of an accessory device (117) coupled to a basic device (118) (col. 3, lines 37-59). The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity from the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is

supplied by battery (109) (col. 3, lines 43-59). Therefore, the basic device (118) generates a first control signal (signal indicating the power supply capacity from printer) and supplies the first control signal to the accessory device (117); also the power supply unit (108) is activated in response to the firs control signal (signal indicating power supply from printer is large enough) to supply electrical power from the power supply unit (108) to a control processor (104) of the accessory device (117); a second control signal (signal indicating power supply from printer is not large enough) is generated and supplied to the power supply unit (108) and power is supplied by battery (109). Thus, a latching operation of the power supply unit (108) in response to the second control signal (signal indicating power supply from printer is not large enough) is performed (battery 109 supplies power) to maintain the supply of electrical power from the power supply unit (108) to control processor (104) regardless of the state of the first control signal. Although the Takahashi reference discloses all of the above limitations, the control signal (signal indicating the power supply capacity from printer) does not trigger a transition of the accessory device (camera) from a powered-off state in which the power supply unit is deactivated to a powered-on state in which the power supply unit is activated.

Kishida discloses a camera (accessory device) that is detachably attached to the main body of a personal computer (basic device) using connectors (62,70). The camera (52) is directly attached to the computer (PC1) and the video capture controller (223) of the computer (PC1) detects whether or not the camera (52) is connected to the computer (PC1) and turns on/off a switch (316) in order to connect a power supply (317)

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to the camera (52) (col. 13, line 35-col. 14, line 28). Thus, it can be seen that a control signal (detection result of whether or not the camera is connected to the computer) triggers a transition of the accessory device (camera) from a powered-off state to a powered-on state. Therefore, it would have been obvious for one skilled in the art to have been motivated to include the teaching of using a control signal sent from a basic device to transition an accessory device from a powered-off state to a powered-on state as disclosed by Kishida in the image input/output system disclosed by Takahashi.

Doing so would provide a means for using a basic device to remotely activate a power source of an accessory device connected to the basic device.

Re claim 22, Takahashi states that the power management unit (108) includes a timer (203) that measures the idling time of the device. When the idling time reaches a prescribed time and the power detection unit (202) detects that the remaining charge on the battery of the image-sensing device (117) is larger than a prescribed value, the power supplies of the printer (118) and the image-sensing device (117) are turned off (col. 13, lines 37-49). Therefore, latching operation of the power supply unit is maintained for a predetermined time.

Re claim 23, see claim 22. Takahashi states that the power supplies of the printer (118) and the image-sensing device (117) are turned off after a predetermined period of time (col. 13, lines 37-49). Therefore, the latching operation is discontinued.

Re claim 24, Takahashi states that if the remaining charge on the battery is smaller than the prescribed value, a battery charging mode is started, and the battery is charged (col. 13, lines 46-49). Therefore, an accessory operation (recharging the battery (109)) is performed in response to an activity command. The predetermined time period must also be reset after completion of the accessory operation (recharge) because the reference states that the timer starts from the operation end timing and measures non-operation time (col. 13, lines 37-40). Therefore, the camera is not idle during recharging so the idle timer will not start until charging stops.

Claims 8-11 rejected under 35 U.S.C. 103(a) as being anticipated by Takahashi et al. in view of Kishida et al. and further in view of Schlack et al. US 5,392,447.

Re claim 8, Takahashi in view of Kishida discloses all of the limitations of claim 1 above. However, in the Takahashi reference the basic device is a printer (118) and the accessory device is an image-sensing device (117) such as a digital camera (fig. 1; col. 3, lines 18-42). However, the combination of the Takahashi and Kishida references does not mention a configuration of coupling a camera accessory device to a basic device such as a personal digital assistant (PDA)

Schlack discloses in figure 21, a PDA that is connected an electronic camera unit having a lens (90) that focuses an image of a subject onto an imaging device provided

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within the body of the main unit (10) of the PDA (col. 12, lines 16-25). The electronic camera module is connected to the main unit (10) of the PDA via the docking connector (72) coupling (col. 12, lines 38-46). Therefore, it would have been obvious for one skilled in the art to have been motivated to couple a PDA to a digital camera via an interface as disclosed by Schlack rather than coupling a printer to a digital camera via an interface as disclosed by Takahashi in view of Kishida. Doing so would provide a means for causing the output of an electronic imaging device to be displayed by a display unit so that the display unit can be used as an active viewfinder (Schlack: col. 12, lines 27-37).

Re claim 9, see claim 8. The accessory device disclosed by Schlack in figure 21 is an electronic camera.

Re claim 10, Schlack discloses in figure 21, a PDA that is connected an electronic camera unit having a lens (90) that focuses an image of a subject onto an imaging device provided within the body of the main unit (10) of the PDA (col. 12, lines 16-25).

Re claim 11, Schlack states that the output of an electronic imaging device is displayed by a display unit (14) so that the display unit can be used as an active viewfinder (col. 12, lines 27-37).

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#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miki et al. (US 6,101,339) discloses a camera and system operating from a secondary battery. The information regarding multiple power sources for a camera is relevant material.

Lewis, Jr. et al. (US D449,848) discloses a PDA digital camera accessory module. The information regarding a camera accessory for a PDA is relevant material.

#### **Contacts**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is (571) 272-7312. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on (571) 272-7320. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at (571) 273-7312.

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Kelly I f

**KLJ** 

PRIMARY EXAMINER